Chapter 78
Mobile Health Services:
A New Paradigm for Health Care Systems

Nabila Nisha
North South University, Bangladesh

Afrin Rifat
North South University, Bangladesh

Mehree Iqbal
North South University, Bangladesh

Sherina Idrish
North South University, Bangladesh

ABSTRACT

Today, information and communication technology (ICTs) are influencing health system development across many developing countries, particularly through the application of mobile communications. As such, there has been an initiation of a new paradigm of mobile health services which has made health-care delivery more accessible, affordable and effective. However, such service delivery platform has been mainly targeted towards the rural population, so there is growing concerns about its acceptance and future use intentions in the urban areas. The aim of this paper is to examine and critically assess the underlying factors that can influence future use intentions of mHealth services in the context of Bangladesh. The conceptual model of the study identifies that information quality, facilitating conditions, trust and effort expectancy plays an important role in capturing users' overall perceptions of mobile health services. Finally, the study highlights the managerial implications, future research directions and limitations from the perspective of Bangladesh.

1. INTRODUCTION

Information and communication technology (ICTs) has radically transformed healthcare delivery across many developing countries. The introduction of ICT in healthcare, particularly the application of mobile technology based health care services (mHealth), has made healthcare delivery more accessible and affordable in recent times. This new form of healthcare delivery serves as a tool with a huge potential for health care organizations to deliver quality and cost-effective care to geographically dispersed populations in low and middle-income countries [Powell et al., 2003; Ganesh, 2004; Jung, 2008]. As a result, there is a growing enthusiasm among the analysts of global health for the possibilities that has opened up through this new paradigm of mobile health services.

Mobile health (mHealth), has been broadly defined by the Global Observatory for e-Health (GOe) of the World Health Organization (WHO) as the medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants (PDAs) and other wireless devices [WHO, 2011]. The mHealth application generally provides patient monitoring, sends text messages reminding patients to take needed medications and offers suggestions for maintaining health while pregnant, even in war-ravaged places [Harvard School of Public Health, 2012].

Within Bangladesh, there has been considerable exploration of the ways in which mobile phones can be used as a means to provide relevant health information to people. The simplest example has been the use of SMS messages as part of a government health education programme, wherein the country's leading mobile phone operators broadcast the government's SMS messages at no additional cost to the mobile phone users [WHO, 2011]. Over time, Bangladesh experienced significant advances and development in the health care sector as the government initiated a number of mHealth programmes that are currently operational through telemedicine services by means of specialized 24/7 call centers [DGHS, 2014].

Although mHealth services alleviate some of the access and timeliness related challenges in the provision of healthcare services in the rural areas of Bangladesh [Rashidee, 2013], there is growing concerns about the acceptance and future use intentions of such services in the urban areas of the country. It is noteworthy that perceptions of poor quality of healthcare information may dissuade users from availing mHealth services because health concerns are among the most salient of human concerns [Kaplan and Litwka, 2008]. Also, if the system of mHealth services cannot be trusted to guarantee a threshold level of quality, it will remain underutilized, be bypassed or used mostly as a measure of last resort [Dagger et al., 2007; Akter et al., 2010]. This importance

of information quality and trust for mHealth services has been evidenced in numerous studies, but there is a paucity of research regarding the effects of these factors on the acceptance and use of mHealth services in Bangladesh.

This study fills into the void by aiming to conceptualize the proposed constructs of information quality and trust to examine the factors that can influence future use intentions for mHealth services in the context of Bangladesh. To pursue this purpose, the unified theory of acceptance and use of technology (UTAUT) model has been used. Findings of this research will provide further insights into understanding and managing potential mHealth users, particularly hailing from the urban areas of Bangladesh. This study can also assist various public and private hospitals of the urban areas, along with various telecommunication networks to consider the idea of providing suitable mHealth services to the urban people of Bangladesh.

2. LITERATURE REVIEW

This study argues that it is necessary to determine the factors that can influence future use intentions for mHealth services in the context of Bangladesh. As such, the current practice of mHealth services and its implications in Bangladesh, followed by the research platform of the study and finally, the theoretical background of the proposed constructs has been discussed to determine the gaps for the study.

2.1. Mobile Health Initiatives in Bangladesh

As part of their initiative to develop an ICT-informed health system, the government of Bangladesh has developed a Health Management Information System (MIS) department under the Directorate General of Health Services (DGHS). One major function of this department is to ensure

15 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:
www.igi-global.com/chapter/mobile-health-services/138472

Related Content

A Systems Framework for Modeling Health Disparities in the Prevalence in Chronic Conditions following a Natural Disaster Event
Rafael Diaz, Joshua G. Behr, Francesco Longoand Hua Liu (2013). *International Journal of Privacy and Health Information Management (pp. 12-28).*
www.irma-international.org/article/systems-framework-modeling-health-disparities/77004

Sarah's Choice: Breast Cancer and Mammogram Screening Decisions
Amy Price (2013). *International Journal of User-Driven Healthcare (pp. 33-48).*
www.irma-international.org/article/sarah-choice-breast-cancer-mammogram/76684

The SHEEP Model: Applying Near Miss Analysis
Deborah J. Rosenorn-Lanngand Vaughan A. Michell (2014). *Handbook of Research on Patient Safety and Quality Care through Health Informatics (pp. 21-32).*
www.irma-international.org/chapter/the-sheep-model/104070

RFID Applications in E-Healthcare
Mohamed K. Watfa, Manprabhjot Kaurand Rashida Firoz Daruwala (2012). *E-Healthcare Systems and Wireless Communications: Current and Future Challenges (pp. 70-98).*
www.irma-international.org/chapter/rfid-applications-healthcare/60186

eSelf or Computerized Self Network: A Tool for Individual Empowerment & Implementation of Optimal Healthcare
Fereydoon Baradaran Bagheri (2013). *International Journal of User-Driven Healthcare (pp. 20-32).*
www.irma-international.org/article/eself-or-computerized-self-network/86364